Recreation Area Improvement (Acre) 562

DEFINITION

Establishing grasses, legumes, vines, shrubs, trees, or other plants or selectively reducing stand density and trimming woody plants to improve an area for recreation.

PURPOSE

To increase the attractiveness and usefulness of recreation areas and to protect the soil and plant resources.

CONDITIONS WHERE PRACTICE APPLIES

On any area planned for recreation use.

CRITERIA

General Criteria Applicable to all Purposes

Plant Materials-Grasses

Turf grasses are best used as ground cover for intensive use areas such as: sports arenas, picnic and camping areas, walkways, trails, lawns, and parkways. Grasses planted with legumes become slippery when wet, stain clothes and are best suited to scenic and natural areas that will experience little or no foot or vehicular traffic. Refer to Table 1 for turf grass seeding recommendations.

All site preparation including finish land grading and shaping and drainage will be performed before applying the seed. Refer to Michigan Conservation Practice Standard #342-Critical Area Planting for further details on seedbed preparation and establishment.

Select grass species based on growth characteristics suited to the site and desired use of the stand.

Avoid mixing bentgrass, redtop, tall fescue, and timothy in lawn and playground seed mixtures if a high quality turf is desired. These species produce an unsightly "patch" appearance and, once established in a lawn, are very difficult to remove.

Do not mix white clover into recreation seedings. White clover is slippery in playgrounds and may lead to injuries. Refer to Table 1 for grass species best suited for recreation areas.

Plant Materials-Trees and Shrubs

Tree and shrub plantings may be used in recreation areas to:

a. provide shade and reduce temperatures

b. add diversity and color to landscape

c. screen undesirable views

d. control or direct people movement

e. attract wildlife

Refer to Michigan Conservation Practice Standard #612-Tree/Shrub Planting for procedures to follow in establishment. Refer to Michigan Conservation Practice Standards #660-Tree/Shrub Pruning and #666-Forest Stand Improvement for procedures on management and maintenance. See Table 2 for tree/shrub species best suited for planting in recreation areas. Use vegetation adapted to the site that will accomplish the desired purpose. Preference shall be given to native species in order to reduce the introduction of invasive plant species; provide management of invasive species; and minimize the economic, ecological and human health impacts that invasive species may cause. If native plant materials are not adaptable or proven effective for the planned use, then non-native species may be used. Refer to the NRCS Field Office Technical Guide, Section II, Invasive Plant Species, for plant materials identified as invasive species.

Plant Materials-Non-Grass Ground Covers

Non-grass ground covers may be used in areas that do not experience foot or vehicular traffic. Some areas where non-grass ground covers may be suited are:

a. steep banks or slopes

b. areas too shady for grass to grow

c. very wet or dry locations

d. underplanting in shrubs or trees

e. locations adjacent to buildings, walls, walkways or fences

Ground cover species will be adapted to the site and suitable for the intended use. Selected ground covers will be controlled by mechanical or chemical means as necessary to ensure they do not spread beyond the intended use area. Refer to Michigan Natural Resources Conservation Service Technical Guide Section I – List of Invasive Plant Species for species known to be invasive to natural areas.

Treatment of Vegetation in Recreation Areas

1. Grasses:

Apply fertilizer and lime according to the needs of a soil test. In the absence of a soil test, apply up to 2 lbs. N per 1,000 square feet. Phosphate and potash should be included when needed.

Mow grasses to the following heights:

Species:	Mowing Height:
Tall fescue	1.5 to 3 in.
Bermudagrass	1 to 2 in.
All other species	1.5 to 3 in.

Cut grass when growth reaches 50% higher than desired mowing height. Do not cut more than one third of growth during any mowing.

In low use areas, do not cut grasses before July 15th to protect ground-nesting birds. Limit mowing thereafter to that needed for control of woody plants and noxious weeds.

2. Trees and Shrubs:

Prune trees and shrubs as needed for safety, better visibility, aesthetics, disease and insect control. Do not prune more than one third of live crown on any tree/shrub at one time. Follow recommendations for pruning in Michigan Conservation Practice Standard #660-Tree/Shrub Pruning and Michigan Conservation Sheet #660-Tree and Shrub Pruning.

Thin or remove trees/shrubs as needed to create views, edges, encourage growth of understory vegetation and to remove hazard trees to improve safety. Follow guidelines in Michigan Conservation Practice Standard #666-Forest Stand Improvement and in Michigan Conservation Sheet #666-Forest Stand Improvement.

Replace dead or dying trees/shrubs as needed in accordance with Michigan Conservation Practice Standard #612-Tree/Shrub Planting.

CONSIDERATIONS

Effects on the water budget, especially on volumes and rates of runoff, infiltration, and transpiration, should be evaluated prior to the establishment or removal of vegetation.

Vegetative plantings may decrease runoff through retarded flows providing the opportunity for increased infiltration.

A temporary increase in runoff and sedimentation may be noted as a result of construction activity.

Sedimentation may be minimized by using temporary sediment and erosion control measures. Follow guidelines in Michigan Conservation Practice Quality Standard #342-Critical Area Planting.

Water may be degraded by the use of fertilizers, pesticides, organic wastes, or other chemicals associated with recreational activities.

Apply fertilizer according to needs determined by a soil test and in accordance with Michigan Conservation Practice Standard #590-Nutrient Management.

Apply pesticides, as needed, in accordance with label instructions and Michigan Conservation Practice Standard #595-Pest Management.

Before beginning recreation area improvements, inventory potential recreational assets including water acreage, vegetation size, form and color, wetlands, unique landforms and other areas of historic, geologic or archeological importance.

All safety hazards will be noted and minimized accordingly.

PLANS AND SPECIFICATIONS

Specifications for this practice shall be prepared for each site. Specifications shall be recorded using approved specification sheets, job sheets, and narrative statements in the conservation plan or other acceptable documentation. These documents are to specify the purpose, location and planting layout as well as the species to be planted by row number, field, site preparation requirements, planting dates, planting method, spacing in row and between rows. Requirements for post-planting weed control, mowing, pruning, and maintenance of the practice will be incorporated into the site specifications.

OPERATION AND MAINTENANCE

The following practices will be carried out to ensure that this practice functions as intended throughout its expected life. These actions include the normal repetitive activities in the application and use of the practice (operation) and the upkeep of the practice (maintenance):

- Removal and replacement of dead or hazard trees as needed.
- Thinning and pruning trees and shrubs to improve health and vigor and to provide adequate sunlight to maintain understory vegetation and/or ground cover.
- Periodic mowing of grass and forbs to maintain height and vigor and control noxious weeds.
- Application of vegetative and/or mechanical erosion control measures as needed to control runoff and reduce sedimentation on and off site.

Table 1. Recreation Area Seeding Guide

Primary Use of Area	Species	Seeding Rate		pH suitability	Drainage Requirements*		
		Lbs./ac	Lbs./1000 sq. ft.		Droughty	Well Drained	Wet
1. Parking Lots (unsurfaced)	Tall Fescue	40	1	5.4 - 7.5	2	1	2
2. Athletic Fields, Playgrounds, sports areas and other hard-use foot traffic areas.	Tall Fescue	40	1	5.4 - 7.5	2	1	2
	Tall Fescue and Kentucky Bluegrass	25 15	5/8 3/8	5.8 - 7.5		1	2
3. Recreation Areas surrounding heavy-use areas-Golf courses (fairways, roughs), Picnic, camping and scenic areas	Tall Fescue	25	5/8	5.4 – 7.5	2	1	2
	Kentucky Bluegrass	30 - 40	¾ - 1	5.8 – 7.5		1	2
Open Sunlight	Tall Fescue Kentucky Bluegrass	15 –20 15 –20	3/8 – ½ 3/8 – 1/2	5.8 – 7.5		1	2
Partial Shade	Tall Fescue Creeping Red Fescue	15 – 20 15 - 20	3/8 – ½ 3/8 – 1/2	5.5 – 7.5	2	1	
	Kentucky Bluegrass Red Fescue	15 – 20 15 - 20	3/8 – 1/2	5.8 – 7.5	2	1	

4. Lawns and yards	Bluegrass blends		2	5.8 – 7.5	2	1	2
Open Sunlight	Bluegrass blends 90%, Redtop 10%		2	5.8 – 7.5	2	1	2
Partial Shade	Creeping Red Fescue 50%, Kentucky Bluegrass or Bluegrass blends 50%		2	5.8 – 7.5	2	1	
5. Temporary lawn cover (to be destroyed and re-seeded later)	Annual ryegrasses 90% , Red Top 10%		2 -3	5.5 – 7.5	2	1	2

1 – Preferred, 2 – Will tolerate

Table 2 – Recreation Area Tree/Shrub Planting Guide a/

Purpose, Use and Aesthetic Value	**Species**	**Spacing (feet)**	**Growth Rate b/**	**Height (feet)**	**Tolerance**		**Drainage Requirements c/**	
					Sun	**Shade**	**Poorly Drained**	**Well Drained**
1. Shade & 0rnamental:	Trees:							
Evergreen d/	White Pine	65	M	100		X	1	2
	Red Pine	65	F	100	X			1
	White Spruce	65	M	50		X	2	1
	Norway Spruce	65	F	80		X	2	1
	Blue Spruce	65	S	50	X			1
	White Cedar	65	VS	50		X	1	2
	Eastern Hemlock	65	S	100		X	2	1
Deciduous	Sugar Maple	65	S	100		X	2	1
	Silver Maple	65	F	65	X		1	2
	Red Maple	65	F	70	X		1	2
	White Oak	65	S	80	X			1
	Red Oak	65	F	100	X			1
	Scarlet Oak	65	M	70	X			1
	Green Ash	65	F	50	X		1	2
	White Ash	65	M	80	X			1
	Basswood	65	S	75		X	2	1
	Beech	65	VS	85		X		1
Ornamental and Wildlife	Shrubs and Trees							
Evergreen d/	Ground Juniper	varied	S	6	X			1
	Ground Hemlock	varied	S	4	X		1	2
	Eastern Redcedar	30	VS	50	X			1

Table 2 Continued

Purpose, Use and Aesthetic Value	**Species**	**Spacing (feet)**	**Growth Rate b/**	**Height (feet)**	**Tolerance**		**Drainage Requirements c/**		
					Sun	**Shade**	**Poorly Drained**	**Well Drained**	**Droughty**
Deciduous (fruit and flowers)	Redbud	varied	S	25		X		1	
	Wild Crabapple	varied	S	25	X			1	
	Juneberry	varied	S	25		X		1	2

	American Wild Plum	varied	S	25	X			1	2
	Sumac: Smooth and Staghorn	varied	S	25	X			1	2
	Highbush Cranberry	varied	M	12		X	1	2	
	Winterberry	varied	S	10		X	1	2	

a/ On sites with severe erosion hazards, see Michigan Conservation Practice Standard #342-Critical Area Treatment
b/ Growth Rate symbols: F = fast, M = medium, S = slow, VS = very slow.
c/ Drainage Requirements: 1=preferred, 2=will tolerate.
d/ Prune evergreen ornamentals as needed to obtain desired shape. Refer to Michigan Conservation Practice Standard #660-Tree/Shrub Pruning for guidelines.